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## JP10118457A: EXHAUST GAS CLEANING APPARATUS FOR INTERNAL COMBUSTION ENGINE

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**Abstract:** **Problem to be solved:** To efficiently clean not only nitrogen oxides but also hydrocarbons and carbon monoxide by providing a reducing reaction type lean NOx catalyst to the upstream part of an exhaust pipe and providing a catalyst also having NOx reducing function other than oxidizing function of HC and CO in a lean atmosphere to the downstream part thereof.

**Solution:** A lean NOx catalyst 1A cleaning NOx in exhaust gas by reducing reaction is arranged to the upstream part in an exhaust pipe and a catalyst 1B having oxidizing function of HC and CO is arranged on the downstream side of the catalyst 1A. The catalysts 1A, 1B are obtained by supporting a noble metal on a porous carrier composed of at least one kind of metal oxide selected from alumina, titania and zirconia as an active component to form a catalyst and adding at least one of alkali metal, alkaline earth metal, rare earth metal and transition metal oxide to the catalyst in the catalyst 1A and adding at least one of alkaline earth metal, rare earth metal and transition metal oxide in the catalyst 1B.

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